

**MONTANA  
STATE  
LIBRARY**



# ISD NEWS AND VIEWS

A PUBLICATION OF THE INFORMATION CENTER BUREAU  
MONTANA DEPARTMENT OF ADMINISTRATION

STANDARD NUMBER 100  
JAN 1989

## INFORMATION SERVICES DIVISION

SEPTEMBER, 1986 VOL. 4 NO. 11

11/27/86  
11/11/86  
HELEN, MONTANA

### ADMINISTRATOR MIKE TREVOR

INFORMATION CENTER BUREAU CHIEF DAVE MARSHALL  
CENTRAL OPERATIONS BUREAU CHIEF PAUL RYLANDER  
TELECOMMUNICATIONS BUREAU CHIEF TONY HERBERT  
SYSTEMS DEVELOPMENT BUREAU CHIEF JEFF BRANDT

### TABLE OF CONTENTS:

#### MAINFRAME SECTION:

ISO RATES 1  
SAS MANUAL ERROR 2  
MICRO-MAINFRAME TRANSFER UPDATE 2

#### MICROCOMPUTER SECTION:

IBM PC 3270 EMULATION VERSION 2.0 4  
LOTUS 1-2-3 RELEASE 2.01 UPGRADE 4  
LOTUS 1-2-3 TIP 4  
PC GRAPHICS REQUIREMENTS 4  
DISPLAYWRITER SOFTWARE 5  
TERM CONTRACT UPDATE 5  
IBM XT COMPATIBILITY PROBLEMS 6

#### GENERAL NEWS:

NEW TRAINING 8  
INCREASING YOUR COMPUTER VOCABULARY 8

#### TRAINING SCHEDULE: 9

HAROLD CHAMBERS  
MONTANA STATE UNIVERSITY  
REFERENCE & LIBRARY  
1515 S. SIXTH  
HELEN, MT 59622

# PLEASE RETURN



## MAINFRAME SECTION

### ISD RATES

Information Services Division has recently completed a comprehensive analysis of its costs and rates. The objectives of the analysis were to:

Establish a "reasonably" cost based system of rates.

Minimize the subsidy of various services by the mainframe processing rate.

Provide incentive to use the most productive and appropriate tools (emphasis on people savings)

A consulting firm, David M. Griffith and Assoc., was hired to facilitate this project. This firm had considerable experience with similar projects undertaken by other state managed data centers. The process entailed identifying the cost of approximately fifty different cost pools in ISD and allocating the overhead cost pools to twenty-three service centers.

Once costs were known, usage statistics were gathered from fiscal year 1986 to estimate usage in FY87, FY88, and FY89. These estimates were then used to determine the "cost-based rates". After analyzing the effect the cost based rates would have on agencies, the rates were adjusted and billable rates were projected for FY88 and FY89 that would have the most favorable impact on agencies and still allow the division to obtain its original goals.

The cost recovery concepts, goals, and rates were discussed with the Data Processing Advisory Council, Data Processing Managers Group, the Budget Office, and the Legislative Fiscal Analyst Office. The results of this process are as follows:

Rates that will go DOWN significantly:

- IDMS Database production processing
- CICS Online Processing
- TSO Online Processing
- Batch Processing with minimal printing at the central site and minimal requirement for tape mounts

Rates that will go DOWN slightly:

- Disk Storage
- Batch Processing with heavy printing at the central site and lots of tape mounts

Rates that will stay about the SAME:

- Microfilming/COM/Records Storage
- Tape Storage
- Training

Rates that will go UP:

- Network monthly hookup charges
- Local Printing
- I/O Control
- Dial Up Communications
- Data Entry
- Systems Development (if the pay matrix goes up)

Rates that are NEW:

- Office Automation Subscription Fee which includes Information Center Support and usage of the document distribution system, DISOSS and related products.
- Technical Services Distributed System Support (Hourly)
- Network Installation
- Tape Mounts

Implementation of the new rates is planned for July, 1987. The effect that these changes have upon each agency differs. However, overall the reduction in rates exceeds the increases in rates. If you would like to discuss how these changes will affect you and your data processing plans, do not hesitate to call Jim Christnacht at 444-2703, or Amy Palmer at 444-2868.

#### **SAS MANUAL ERROR**

On page 948 of the SAS User's Guide: Basics, Version 5 Edition is an incorrect coding syntax specification for the TABLES statement used in PROC FREQ. The second example line shows:

```
TABLES A--C
```

to use a variable list specification. This should read:

```
TABLES (A--C)
```

Unlike other uses of a variable list, the parentheses are required when used on the TABLES statement.

#### **MICRO-MAINFRAME TRANSFER UPDATE**

The following provides some updated information to the Micro-Mainframe Transfer article which appeared in the May '86 issue of ISD NEWS AND VIEWS.

In the time since those transfers were performed, IBM has delivered its new Advanced 3278/79 Emulation Adapter card along with new software which works with either the old or new boards. Two versions of software are available which replace the old 3278/79 Emulation Control Program:

1. IBM PC 3270 Emulation Program - Entry Level
2. IBM PC 3270 Emulation Program - Version 2

Version 2 has more capabilities than Entry Level (extended 3270 function, SDLC, API).

The file transfers which were done for the May '86 tests were repeated for the new board and software. The results are as follows:

Name	4K		160K		1M	
	Time	Cost	Time	Cost	Time	Cost
----- Entry Level	0:07	\$ 0.87	0:44	\$ 2.09	3:52	\$ 8.30
Version 2	0:14	\$ 0.77	0:42	\$ 2.60	3:21	\$ 6.02
PANLINK with Adv 3278/79 <u>1/</u>	0:02	\$ 1.40	0:46	\$ 2.04	4:38	\$ 5.50

1/ CUT mode only. PANLINK does not work with DFT mode. Note that Entry level runs in CUT mode, Version 2 in DFT mode. You can use PANLINK with the Advanced 3278/79 board even if you have Version 2, you just have to use CUT mode.

Compare the above with the old version, reprinted below from the May '86 article:

IBM 3278/79	0:46	\$ 0.83	3:14	\$ 1.82	18:45	\$ 7.21
PANLINK w/IBM	0:05	\$ 2.52	1:22	\$ 3.42	6:50	\$ 8.29

The new IBM board and software provides substantial improvement for file transfers in terms of both speed and cost. In fact, the improvement even exceeds IBM's claims of 40%.

Note that a call to PANLINK support confirmed that they do not currently support DFT mode and don't know if and when they will.

## MICROCOMPUTER SECTION

### IBM PC 3270 EMULATION VERSION 2.0

A new release of IBM's 3270 emulation program is available through the Information Center. Version 2.0 of IBM's emulation program has been updated to 2.02. If you currently have 3270 emulation version 2.0, contact Ron Heilman at 444-2924 for a copy a release 2.02. The update is free and please bring a blank diskette.

### LOTUS 1-2-3 RELEASE 2.01 UPGRADE

Maintenance Release 2.01 for Lotus Release 2 is now available. The upgrade is free and to qualify for the upgrade, please bring your 5 diskettes from Release 2. If you received upgrades through the Information Center, contact Brett at 444-2044.

If you purchased your upgrade from Property and Supply, contact them.

### LOTUS 1-2-3 TIP

#### ERASING WORKSHEET CELLS IN LOTUS 1-2-3 AND PREVENTING CALCULATION ERRORS

The safest way to erase a worksheet entry in Lotus 1-2-3 is by using the Range Erase command.

Some users find it faster to erase a cell by placing the cell pointer on the cell, inserting a space and pressing enter. This may seem like the easiest way to erase, but instead of actually erasing the cell entry, a blank space is entered into the spreadsheet. Blank space characters are treated as labels, so the ' default label-prefix character is entered into the cell.

Calculation errors may occur if you use the space bar to erase an entry. For example: The @SUM functions will work correctly because @SUM ignores labels when summing ranges. The @AVG function, on the other hand, treats the blank cell labels as cell entries with the value of zero - and renders an incorrect calculation.

### PC GRAPHICS REQUIREMENTS

While testing Freelance, we discovered that it required more video memory to run than was on our machine. If you are contemplating buying software of this type in the future, and don't know what the hardware requirements are, or what you have on your machine, call the Information Center for assistance.



## IBM WITHDRAWS DISPLAYWRITER SOFTWARE FROM MARKET

Effective July 2, 1986, IBM withdrew from marketing the 6580 Displaywriter system license programs. This includes all software for the Displaywriters. By withdrawing the software from the market IBM has sent a very clear message that the Displaywriter is reaching the end of its product life span. Although it is still a very productive word processing system, agencies are encouraged to look at other options (e.g. microcomputers) when planning office automation. In general, it is industry view that the day of the dedicated word processor has passed.

## TERM CONTRACT PRICES REDUCED

IBM has recently reduced prices on some term contract items. New prices are as follows:

	System Price	Upgrade Price
5150/176 system unit	\$ 1,052.70	
PC & XT memory expansion features		
1003 64 kb memory module	\$ 13.20	\$ 14.00
1013 64/256 kb memory expansion	\$ 125.40	\$ 133.00
3336 128 kb memory module	\$ 25.08	\$ 26.60
AT memory expansion		
0202	\$ 49.50	\$ 52.50
3338 128/640 kb memory expansion	\$ 231.00	\$ 245.00
Professional Graphics Monitor	\$ 511.50	
Professional Graphics Adapter	\$ 1,184.70	\$ 1,256.50

Leading Edge has reduced the price of the following term contract item:

	Price	Estimated Freight	Maintenance
Leading Edge PC Model D/F	\$1036.75	\$10.00	\$120.00

Leading Edge has added the following to the term contract:

Leading Edge PC Model D/H (30 MB)	\$1756.95	\$10.00	\$190.00
-----------------------------------	-----------	---------	----------

An updated term contract price list is available on diskette (in WordPerfect and Displaywrite3 format). To receive a copy send a formatted diskette to the Information Center Bureau, and indicate which version you need. If you have questions concerning term contract items, contact Ron Heilman 444-2924 or the vendor.

## IBM PERSONAL COMPUTER XT COMPATIBILITY PROBLEMS WITH IBM NETWORK ADAPTER CARDS

IBM has determined that a small number of certain IBM Personal Computer XTs are incompatible with particular IBM Network Adapter Cards. There is a possibility of data errors when an IBM Personal Computer XT with a 256/640 KB system board and a fixed disk drive installed is used with an IBM PC Network Adapter Card which has a bar code number starting with 064 or 074.

In order to determine if your IBM Personal Computer XT network configuration may be susceptible to this problem, please check the following: (All must be present before a problem exists).

1. The model number on the IBM Personal Computer XT is one of the six below and is within the serial number range shown below.

<u>MODEL NUMBER</u>	<u>SERIAL NUMBER RANGE</u>
5160268 or 5160267	2,000,001 - 2,069,392
5160278 or 5160277	3,000,001 - 3,034,646
5160089 or 5160088	4,000,001 - 4,083,500

2. A fixed disk drive is installed.
3. An IBM PC Network Adapter card is installed, and the bar code number on the card begins with 064 or 074.
4. There are two methods of determining if the bar code number begins with 064 or 074. You may use either of the following procedures:

- The IBM PC Network Adapter card can be removed from the system unit to locate the bar code on the lower center of the component side of the adapter. Please follow the installation instructions in the Guide to Operations manual when removing and installing the adapter card.

- Load the DOS diskette. At the A prompt, type BASICA and press enter. Type the following as shown, pressing the enter key after each line:

```
10 DEF SEG=&HCC00
20 FOR X=&H1FF5 TO &H1FFC
30 PRINT CHR$(PEEK(X));
40 NEXT
```

Press the F2 key. A date and time will be displayed on your screen. If this date is 04/16/85, your IBM PC Network Adapter card has a bar code beginning with 064 or 074. If any other information appears, the bar code number does not begin with 064 or 074.

On-site replacement of the system board will be available at no charge through **December 31, 1986**. If you prefer, you may take your affected system unit to any authorized servicer for system board replacement. For more information, contact Ron Heilman at 444-2924 or call IBM.

## GENERAL NEWS

### INFORMATION CENTER ANNOUNCES NEW TRAINING

The Information Center will be presenting two more new classes at the end of October: **Using Personal Services/PC** and **Personal Manager**.

**Personal Services/PC** (PS/PC) is an IBM microcomputer product that allows you to send messages and documents electronically to other DISOSS users with the mainframe acting as a middle man.

**Personal Manager** is a mainframe calendaring product available to anyone communicating with the mainframe. It can be used for keeping track of personal appointments for yourself or others, searching for free time, scheduling resources like conference rooms or equipment and keeping track of telephone messages.

Both classes are taught by staff of the Information Center. Please refer to the Class Schedule for details or call Wendy at 444-2856.

### INCREASING YOUR COMPUTER VOCABULARY

#### Microcomputer Terms

##### Root Directory

A single directory that is created when the disk or diskette is formatted. In addition to containing the names of files, the root directory can also contain the names of subdirectories.

##### Monochrome Display

A display that is limited to two colors. For example, a black and white display.

##### Desk-top Publishing

Desk-top Publishing is the ability to create final form documents from your microcomputer. Usually, includes a microcomputer, word processing software, and a letter quality printer (e.g. a laser printer).

#### Mainframe Terms

##### SAS

The letters stand for Statistical Analysis System. A mainframe computer software system for data analysis. Software for capturing, editing, and reporting data.

##### Dataset

A collection of records with logical relationships.

## TRAINING SCHEDULE

### MAINFRAME COURSES

**BASIC TERMINAL SKILLS:** presented by Wendy Wheeler of the Information Center

**DATE:** September 26, 1986  
**TIME:** 8:30 a.m. to 4:00 p.m.  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$50.00  
**LIMIT:** 8  
**PREREQUISITE:** 3270nd (interactive class on terminal operation)  
**CANCELLATION DATE:** September 19, 1986

BASIC TERMINAL SKILLS is a hands-on workshop to provide experience using computer terminals and the SPF editor. The SPF editor is an easy-to-learn menu used to enter data and programs into the State of Montana central computer system. Entering data, changing data and submitting programs for execution are covered in detail. Also covered are SPF's utility functions and how to track job output.

This course is essential for state government personnel using terminals tied into the State of Montana central computer. This course is a prerequisite for many other ISD classes.

**INFORMATION SECURITY FOR MANAGERS:** presented by Randy Holm of the Information Center

**DATE:** September 25, 1986  
**TIME:** 9:00 am to 11:30 am  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$10.00  
**LIMIT:** 15  
**PREREQUISITE:** You must be a manager to attend  
**CANCELLATION DATE:** September 18, 1986

This class is designed for managers who have responsibility for storage of and access to agency information on the state's mainframe computer system. It will familiarize managers with the features of ISD's security software that can help managers protect or limit access to vulnerable data stored on tape or disk. With this knowledge, managers can work with agency security officers to ensure that adequate protection measures are in place.

## MICROCOMPUTER CLASSES

**BEGINNING MICROCOMPUTER SKILLS:** presented by the staff of the Information Center

**DATE:** October 14, 1986  
-or-  
October 15, 1986  
**TIME:** 8:15 a.m. to 4:30 p.m.  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$50.00  
**LIMIT:** 10  
**PREREQUISITE:** None  
**CANCELLATION DATE:** October 7, 1986

This course will give participants brief hands-on experience with microcomputers. Topics to be covered:

- The machine
- The operating system
- Word processing
- Spreadsheets and graphics
- File management
- Communications

All class time will be spent using microcomputers and software. The participant will learn what microcomputers can do and how to approach them with a positive attitude. This course or its equivalent is a prerequisite for other microcomputer courses.

**FUNDAMENTALS OF DOS:** presented by Sheila Raunig of the Information Center

**DATE:** October 17, 1986  
**TIME:** 8:30 am to 4:30 pm  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$75.00  
**LIMIT:** 10  
**PREREQUISITE:** Beginning Micro Skills and/or 3 months micro experience  
**CANCELLATION DATE:** October 10, 1986

FUNDAMENTALS OF DOS is intended for microcomputer users who need to know more about controlling their microcomputer through its operating system. This is an introductory course and programming experience is NOT required.

Topics to be covered include:

- What is DOS? Why is it necessary to know about it?
- DOS names for peripherals
- File naming
- Special files like CONFIG.SYS
- Internal commands - DIR, ERASE, RENAME, TYPE, COPY and their variations
- External commands - FORMAT, SYS, DISKCOPY, CHKDSK, MODE
- How to interpret batch files
- Backup procedures

=====  
WORD PROCESSING CLASSES  
=====

**INTRODUCTION TO WORDPERFECT:** presented by Brett McAlister of the Information Center

**DATE:** October 22 and October 23, 1986  
**TIME:** 8:30 am to 3:00 pm on October 22 and  
8:30 am to noon on October 23  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$75.00  
**LIMIT:** 10  
**PREREQUISITE:** Beginning Microcomputer Skills  
**CANCELLATION DATE:** October 15, 1986

This course is intended for anyone interested in learning the basics of WordPerfect. This class will concentrate on text creation, use of function keys, editing, formatting, printing, filing, and retrieving documents. Merging documents, macro creation, block functions and use of the spell checker are also covered. An advanced class for WordPerfect is also available.

**ADVANCED FEATURES OF WORDPERFECT:** presented by Sheila Raunig of the Information Center

**DATE:** September 22 and 23, 1986  
**TIME:** 8:30 a.m. to 3:00 p.m. on September 22  
8:30 a.m. to 12:00 noon on September 23  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$75.00  
**LIMIT:** 10  
**PREREQUISITE:** Beginning Microcomputer Skills and Introduction to WordPerfect  
**CANCELLATION DATE:** September 15, 1986

For those already using WordPerfect, the advanced class will cover headers, footers, footnotes, page numbering and column generation. WordPerfect's math functions, sorting capabilities and dual document editing are also covered.

\*\*\* \*\* NEW CLASS \*\*\* \*\*

INTRODUCTION TO DISPLAYWRITE 3: presented by Brett McAlister of the Information Center

DATE: September 24, 1986  
TIME: 8:30 am to 4:30 pm  
PLACE: Room 25, Mitchell Building  
COST: \$50.00  
LIMIT: 10  
PREREQUISITE: Beginning Microcomputer Skills or equivalent  
CANCELLATION DATE: September 17, 1986

Displaywrite 3 is IBM's microcomputer word processing package. This course will introduce the professional to DW3's comprehensive menu structure, cover the basics of creating, revising, paginating and printing documents.

An advanced, special topics class is also available for Displaywrite3.

=====  
LOTUS 1-2-3 CLASSES  
=====

INTRODUCTION TO LOTUS 1-2-3: presented by Wendy Wheeler of the Information Center

DATE: October 20 and October 21, 1986  
TIME: 8:30 am to 3:30 pm on October 20  
8:30 am to 12:00 noon on October 21  
PLACE: Room 25, Mitchell Building  
COST: \$75.00  
LIMIT: 10  
PREREQUISITE: Beginning Microcomputer Skills  
CANCELLATION DATE: October 13, 1986

This course is designed for anyone with little or no previous 1-2-3 or microcomputing experience. INTRODUCTION TO LOTUS 1-2-3 will concentrate on 1-2-3 spreadsheet design and commands and the creation of graphics. Printing spreadsheets and graphs is also covered. The more advanced features such as macro programming and database commands are covered in the advanced course. Class format consists of lecture and hands-on practice followed by lab time on actual agency spreadsheets for further experience.



=====

DISOSS & RELATED CLASSES

=====

\*\*\*    \*\*\*    NEW CLASS    \*\*\*    \*\*\*

**USING PERSONAL SERVICES/PC (PS/PC):** presented by Jeanette  
Rushford and Mel Liston of the  
Information Center

**DATE:** October 28, 1986  
**TIME:** 8:30 am to 12 noon  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$35.00  
**LIMIT:** 10  
**PREREQUISITE:** Beginning Microcomputer Skills and  
experience with either WordPerfect or  
Displaywrite3  
**CANCELLATION DATE:** October 21, 1986

PS/PC allows you to electronically send and receive messages or files. A document created by either WordPerfect or Displaywrite3 can be distributed to any other person also using PS/PC by going through DISOSS on the state's mainframe computer. To use PS/PC you must have the Personal Services/PC software, the IBM PC 3270 Emulation Program and adapter, and a coaxial cable or phone line connecting your PC to the mainframe.

\*\*\*    \*\*\*    NEW CLASS    \*\*\*    \*\*\*

**PERSONAL MANAGER (PM):** presented by Wendy Wheeler of the  
Information Center

**DATE:** October 28, 1986  
**TIME:** 1:30 pm to 4:00 pm  
**PLACE:** Room 25, Mitchell Building  
**COST:** \$25.00  
**LIMIT:** 10  
**PREREQUISITE:** Beginning Microcomputer Skills or Basic  
Terminal Skills  
**CANCELLATION DATE:** October 21, 1986

Personal Manager is a calendaring product available to anyone who can establish a session with the mainframe. It is used for scheduling meetings (for yourself and others), reserving resources like conference rooms and even taking telephone messages.

=====

OTHER MICROCOMPUTER CLASSES

=====

INTRODUCTION TO PFS:FILE & REPORT: presented by Wendy Wheeler of  
the Information Center

DATE: October 24, 1986  
TIME: 9:00 am to 3:00 pm  
PLACE: Room 25, Mitchell Building  
COST: \$50.00  
LIMIT: 10  
PREREQUISITE: Beginning Micro Skills  
CANCELLATION DATE: October 17, 1986

The PFS:FILE and PFS:REPORT software is an easy to use file management system. This course will give the participant hands-on experience creating databases with FILE demonstrating the flexibility of this software in storing, retrieving, and updating a large amount of related information. The related REPORT software will be used to create columnar reports from your files.

CROSSTALK XVI: presented by Ron Heilman of the Information  
Center

DATE: October 16, 1986  
TIME: 8:30 a.m. to 4:30 p.m.  
PLACE: Room 25, Mitchell Building  
COST: \$50.00  
LIMIT: 10  
PREREQUISITE: Beginning Microcomputer Skills (OA02)  
CANCELLATION DATE: October 9, 1986

Crosstalk XVI is a microcomputer communications software package. This course is designed to familiarize the user with asynchronous communications using a microcomputer and this software. It explores what can and cannot be done and how it is done. It will also teach the user how to use and configure Crosstalk XVI for communicating with remote computers. Most features of Crosstalk XVI (with the major exception of the script file command language) will be covered.

=====

COMPUTER BASED TRAINING

=====

The following tutorials are available in the Computer Based Training Lab located in Room 24 of the Mitchell Building. The tutorials are either diskette or video-based. All are designed for individual study and self-pacing.

Tutorials available in the CBT lab include:

Using Displaywrite 3  
Disk Operating System (DOS)  
Intro to Lotus 1-2-3  
Macro Programming & Advanced Lotus 1-2-3  
Typing Instructor  
Teach Yourself WordPerfect

Call the Information Center at 444-2856 to reserve time.

FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS  
CANCELLATIONS ARE MADE BY THE DATE FOR EACH CLASS.

ISD ENROLLMENT APPLICATION  
(FOR ALL COURSES)

PLEASE COMPLETE THE FOLLOWING APPLICATION AND RETURN  
TO INFORMATION SERVICES DIVISION

COURSE: \_\_\_\_\_

DATE: \_\_\_\_\_

STUDENT: \_\_\_\_\_

AGENCY/DIVISION: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

PHONE: \_\_\_\_\_

ISD BILLING NUMBER: \_\_\_\_\_

SOC SEC NO (FOR P/P/P): \_\_\_\_\_

AUTHORIZED SIGNATURE: \_\_\_\_\_

HAVE YOU MET THE PREREQUISITES FOR THIS COURSE? PLEASE  
EXPLAIN GIVING JOB EXPERIENCE OR CLASS WHEN APPLICABLE

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*  
700 copies of this public document were printed at a cost of  
\$200.00. Distribution costs are \$16.00  
Editor: Teri Lundberg  
\*\*\*\*\*